

REMARKS

Claims 1-3, 5, 9-13, 18, 21-23 and 25-27 are pending. By this Amendment, claims 1, 2, 5, 10, 12, 18, 22, 23, 25 and 26 are amended. No new matter is added.

Claims 1, 2, 5, 10, 12, 18, 22, 23, 25 and 26 are amended to improve form. Support for the claims is found in the disclosure as originally filed.

For the following reasons, reconsideration is respectfully requested.

Claim Rejection Under 35 U.S.C. § 101

Claims 1, 10 and 22 are rejected under U.S.C. § 101. The rejection is respectfully traversed.

With respect to claims 1 and 10, it is respectfully noted that claims 1 and 10 each clearly recite an apparatus, which is facially statutory. In view of the recitation of an apparatus, it is respectfully submitted that claims 1 and 10 are statutory. Regarding the Examiner's statement that claims 1 and 10 could be interpreted as pure software, the Examiner is requested to provide explanation how an apparatus could be interpreted as pure software.

With respect to claim 22, although deemed statutory, claim 22 is amended simply to expedite prosecution.

Withdrawal of the rejection is respectfully requested.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1, 2, 5-7, 9-11, 18, and 21-23 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Wasilewski (US Patent No. 5,420,866), in view of Daemen (“AES Proposal: Rijndael,” March 1999). The rejection is respectfully traversed.

It is respectfully submitted that Wasilewski and Daemen, either individually or in combination, fail to disclose or suggest an apparatus for encrypting/decrypting a real-time input stream, wherein the control unit generates a start key signal when a new round key is needed, as recited in claim 1.

Also, it is respectfully submitted that Wasilewski and Daemen, either individually or in combination, fail to disclose or suggest, an apparatus for encrypting/decrypting a real-time input data stream, wherein the data stream is an MPEG data stream or a Digital Satellite Service (DSS) data stream, and the control unit generates a start key signal when a new round key is needed, as recited in claim 10.

Also, it is respectfully submitted that Wasilewski and Daemen, either individually or in combination, fail to disclose or suggest a real-time encryption/decryption apparatus, wherein the control unit generates a start key signal when a new round key is needed, as recited in claim 22.

Wasilewski simply discloses generating and providing unique encryption control words for each sequence of transport packets 20, 22...24 to the encryptor apparatus 32 via line 35 (see, col. 9, lines 26-30 and FIG. 3A of Wasilewski), but none of the unique encryption control words are the recited start key signal that is generated when a new round key is needed.

Daemen fails to remedy at least this noted deficiency of Wasilewski. Accordingly, Wasilewski and Daemen, either individually or in combination, fail to disclose or suggest each

and every feature of claims 1, 10 and 22. Thus, claims 1, 10 and 22 are patentably distinguishable over the applied references and their combination. Claims 2, 5-7 and 9, which depend from claim 1; claims 11, 18 and 21, which depend from claim 10; and claim 23, which depends from claim 22 are also patentably distinguishable over the applied references and their combination for at least the reasons discussed above and/or for the additional features they recite. Withdrawal of the rejection is respectfully requested.

Claims 3, 12 and 13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Wasilewski (US Patent No. 5,420,866), in view of Daemen ("AES Proposal: Rijndael," March 1999), and further in view of Mroczkowski ("Implementation of the block cipher Rijndael using Altera FPGA," May 2000).

As discussed above, Wasilewski and Daemen, either individually or in combination, fail to disclose or suggest each and every feature of claim 1, from which claim 3 depends, and fail to disclose or suggest each and every feature of claim 10, from which claims 12 and 13 depend. As Mroczkowski fails to remedy at least the noted deficiencies of Wasilewski and Daemen, either individually or in combination, claims 3, 12 and 13 are patentably distinguishable over the applied references and their combination for at least the reasons stated above and/or their added features. Withdrawal of the rejection is respectfully requested.

Claims 25-27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Wasilewski (US Patent No. 5,420,866), in view of Daemen ("AES Proposal: Rijndael," March 1999), and further in view of Vanstone (US Patent No. 6,212,281).

It is respectfully submitted that Wasilewski, Daemen, and Vanstone, either individually or in combination, fail to disclose or suggest, a method of controlling a data protection key, the method being processed in a encryption apparatus comprising generating a start key signal when a generation of a new data key is needed in the encryption apparatus, as recited in claim 25.

As discussed above, Wasilewski and Daemen, either individually or in combination, fail to disclose or suggest the recited feature regarding the generating of a start key signal when a generation of a new data key is needed. Vanstone fails to remedy at least this noted deficiency of Wasilewski and Daemen. Accordingly, Wasilewski, Daemen and Vanstone, either individually or in combination, fail to disclose or suggest each and every feature of claim 25. Thus, claim 25 is patentably distinguishable over the applied references and their combination. Claims 26 and 27, which depend from claim 25, are likewise patentably distinguishable over the applied references and their combination for at least the reasons discussed above and/or for the additional features they recite. Withdrawal of the rejection is respectfully requested.

Conclusion

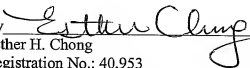
In view of the above amendment and/or remarks, applicant believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Seth S. Kim, Reg. No. 54,577, at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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